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|-------------|---|---|
| VIII-5-1 | Declaration: Non-prejudicial disclosure or exceptions to lack of novelty Declaration as to non-prejudicial disclosures or exceptions to lack of novelty (Rules 4.17(v) and 51bis.1(a)(v)); Name (LAST, First) | in relation to this international application PARK, Sung-Ik declares that the subject matter claimed in this international application was disclosed as follows: |
| VIII-5-1(i) | Kind of disclosure:) | publication |
| VIII-5-1(i) | Date of disclosure: i) | 27 September 2003 (27.09.2003) |
| VIII-5-1(i) | Title of disclosure: ii) | Performance improvement of channel equalization in terrestrial DTV receivers using channel estimation |
| VIII-5-1(i) | Place of disclosure: v) | Proceeding of the 2003 Korean Signal Processing Conference |
| VIII-5-1(i) | This declaration is made for the purposes of: v) | all designations |

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| VIII-5-2 | Declaration: Non-prejudicial disclosure or exceptions to lack of novelty Declaration as to non-prejudicial disclosures or exceptions to lack of novelty (Rules 4.17(v) and 51b1s.1(a)(v)); Name (LAST, First) | in relation to this international application KIM, Seung-Won declares that the subject matter claimed in this international application was disclosed as follows: |
| VIII-5-2(i)) | Kind of disclosure: | publication |
| VIII-5-2(i) i) | Date of disclosure: | 27 September 2003 (27.09.2003) |
| VIII-5-2(i) ii) | Title of disclosure: | Performance improvement of channel equalization in terrestrial DTV receivers using channel estimation |
| VIII-5-2(i) v) | Place of disclosure: | Proceeding of the 2003 Korean Signal Processing Conference |
| VIII-5-2(v) | This declaration is made for the purposes of: | all designations |

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| VIII-5-3 | Declaration: Non-prejudicial disclosure or exceptions to lack of novelty Declaration as to non-prejudicial disclosures or exceptions to lack of novelty (Rules 4.17(v) and 51bis.1(a)(v)); Name (LAST, First) | in relation to this international application KIM, Hyoung-Nam declares that the subject matter claimed in this international application was disclosed as follows: |
| VIII-5-3(i)) | Kind of disclosure: | publication |
| VIII-5-3(i) i) | Date of disclosure: | 27 September 2003 (27.09.2003) |
| VIII-5-3(i) ii) | Title of disclosure: | Performance improvement of channel equalization in terrestrial DTV receivers using channel estimation Proceeding of the 2003 Korean Signal Processing Conference |
| VIII-5-3(i) v) | Place of disclosure: | all designations |
| VIII-5-3(i) v) | This declaration is made for the purposes of: | |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2004/000707

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 H04N 7/015

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int. Cl.7 H04B 3/06, Int. Cl.7 H04B 7/005, H04L 25/03 Int. Cl.6 H04L 25/03, H04N 7/66,7/24, H04L 27/34

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
KR : IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKIPASS "DFE(Decision Feedback Equalizer)", "TCM(Trellis Coded Modulation)", "TBD(Trace Back Depth)", "Channel-Matched Filter", etc.,

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| A | KR 2002-0096988 A (LINX ELECTRONICS, INC.), December 31, 2002 (31. 12. 2002), (Family) - See the whole document - | 1 - 10 |
| A | EP 1058406 A2 (LUCENT TECHNOLOGIES, INC.), December 06, 2000 (06. 12. 2000), (Family) - See the whole document - | 1 - 10 |
| A | WO 96/02100 A1 (ZENITH ELECTRONICS CORPORATION.), July 08, 1994 (08. 07. 1994), (Family) - See the whole document - | 1 - 10 |



Further documents are listed in the continuation of Box C.



See patent family annex.

- * Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

23 AUGUST 2004 (23.08.2004)

Date of mailing of the international search report

25 AUGUST 2004 (25.08.2004)

Name and mailing address of the ISA/KR



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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2004/000707

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|---|--|
| KR 2002-0096988 A | 31 December 2002 | US 2002191689 AA BR 200201877 A | 19-12-2002 11-03-2003 |
| EP 1058406 A2 | 06 December 2000 | JP 2001036437 A2 EP 1058406 A2 TW 484272 B US 6690754 BA CA 2310178 AA EP 1058406 A3 | 09-02-2001 06-12-2000 21-04-2002 10-02-2004 04-12-2000 25-06-2003 |
| WO 96/02100 A1 | 08 July 1994 | CA 2181539 AA JP 10502776 T2 CA 2181539 C JP 3354938 B2 KR 234865 B1 WO 9602100 A1 CN 1141108 A BR 9507201 A CN 1088301 B US 5600677 A US 5636251 A US 5583889 A | 25-01-1995 10-03-1998 29-06-1994 09-12-2002 15-12-1999 25-01-1996 22-01-1997 16-09-1997 24-07-2002 04-02-1997 03-06-1997 10-12-1996 |